



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,462	04/06/2001	Michael Comer	3184	6911

7590 02/07/2006

Niro, Scavone, Haller & Niro  
181 W. Madison-Suite 4600  
Chicago, IL 60602

EXAMINER
----------

EBRAHIMI DEHKORD, SAEID

ART UNIT	PAPER NUMBER
----------	--------------

2626

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/828,462	COMER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Saeid Ebrahimi-dehKordy	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-10 and 12-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-10 and 12-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                         |                                                                             |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____                                                             | 6) <input type="checkbox"/> Other: _____                                    |

### **Response to Amendment**

1. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.
2. Due to the further search the finality of that action is withdrawn, the secondary reference was dropped for the new secondary reference.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venkatraman et al (U.S. patent 6,170,007) in view of Desormeaux (Pub. No.: US 20020070988)

**Regarding claim 1** Venkatraman et al disclose: Internet hardware and software for providing the print engine with Internet connectivity (please note Fig.5 item 10 the printer and the item 100 the internet, also please note Fig.1B the printer comprising web page server item 18 and device –specific hardware and software embedded in the processor, column 4 lines 22-32 and column 4 lines 65-67and column 5 lines 1-3) including a microprocessor communicating with the printer hardware and software (please note Fig.1B items 200 the processor, item 300 the hardware and the software embedded in the processor, column 4 lines 21-29) the microprocessor comprising an embedded Internet server having a valid IP address (please note Figs.1A&B, column 3 lines 21-45) said microprocessor also containing Ethernet MAC and system controller

Art Unit: 2626

(note Fig.1B, column 4 lines 9-31 where the microprocessor 200 and bidirectionally in contact with the memory 210 and the I/O circuitry 220 with Ethernet circuitry) printer hardware and software providing a functioning printer ( note Venkatraman, Fig.1B item 300) However Venkatraman et al do not disclose: An ink jet print engine with Internet connectivity, comprising a piezoelectric printhead for dispensing ink onto a substrate. On the other hand Desormeaux discloses: An ink jet print engine with Internet connectivity (note page 3 paragraph 0026 where the inkjet printer is capable of connectivity for example to download images from internet, note Fig.4&5) and a piezoelectric printhead for dispensing ink onto a substrate (note page 3 paragraph 0023 where the inkjet printer is capable of using Piezoelectric print head). Therefore it would have been obvious to a person of ordinary skill in art at the time of the invention to modify Venkatraman et al's invention according to the teaching of Desormeaux , where Desormeaux teaches the way piezoelectric print head which is part of the printer which connects to the internet as in the case of Desormeaux's is used instead for purpose of optimizing the printer.

**Regarding claim 2** Venkatraman et al disclose: The ink jet print engine of claim 1, wherein the printer software stores one or more valid IP addresses of servers corresponding to maintenance or service centers for one or more components of the print engine (please note column 7 lines 8-17 where the address or URL of for example service contract also note column 4 lines 9-20).

Art Unit: 2626

**Regarding claim 5** Venkatraman et al disclose: the ink jet print engine of claim 1 wherein the system controller includes memory DMA, interrupts and timer (note Fig.1B item 210 the memory)

**Regarding claim 6** Venkatraman et al disclose: The ink jet print engine of claim 1, wherein said microprocessor contains cache, I/O, real time operating systems, device driver software and communications protocol software. (please note column 4 lines 65-67 and column 5 lines 1-3).

**Regarding claim 7** Venkatraman et al disclose: The ink jet print engine of claim 1, wherein the printer comprises integrated networking software (please note column 4 lines 65-67 and column 5 lines 1-3).

**Regarding claim 8** Venkatraman et al disclose: The ink jet print engine of claim 1, wherein the microprocessor uses an RTOS operating system (please note column 4 lines 59-64).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9-10 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venkatraman et al (U.S. patent 6,170,007) in view of Skaanning (Pub. No.: US 20020044296)

**Regarding claim 9** Venkatraman et al disclose: Internet hardware and software for providing the print engine with Internet connectivity (please note Fig.5 item 10 the printer and the item 100 the internet, also please note Fig.1B the printer comprising web page server item 18 and device –specific hardware and software embedded in the processor, column 4 lines 22-32 and column 4 lines 65-67and column 5 lines 1-3) including a microprocessor communicating with the printer hardware and software (please note Fig.1B items 200 the processor, item 300 the hardware and the software embedded in the processor, column 4 lines 21-29) the microprocessor comprising an embedded Internet server having a valid IP address (please note Figs.1A&B, column 3 lines 21-45) said microprocessor also containing Ethernet MAC and system controller (note Fig.1B, column 4 lines 9-31 where the microprocessor 200 and bidirectionally in contact with the memory 210 and the I/O circuitry 220 with Ethernet circuitry) printer hardware and software providing a functioning printer (note Venkatraman, Fig.1B item 300) However Venkatraman et al do not disclose: microprocessor capable of reporting at least diagnostic information about said printer hardware over the internet. On the other hand Skaanning discloses: microprocessor capable of reporting at least diagnostic information about said printer hardware over the internet (please note page 5 paragraph 0058 where the printer 210 communicates over the internet 202 to the diagnostic system 201 of Fig.1). Therefore it would have been obvious to a person of ordinary skill in art at the time of the invention to modify Venkatraman et al's invention according to the teaching of Skaanning, where Skaanning teaches the way the printer is sending the diagnostics over the internet to the service people to repair the device.

Art Unit: 2626

**Regarding claim 10** Venkatraman et al A printer device comprising: printer hardware and software for performing a print function and printer diagnostics (please note column 4 lines 9-20 where the printer hardware 300 and web page 18 which would record the printer functions) a processor contained in said printer device (please note Fig.1B item 220 the processor) said microprocessor also containing Ethernet MAC and system controller (note Fig.1B, column 4 lines 9-31 where the microprocessor 200 and bidirectionally in contact with the memory 210 and the I/O circuitry 220 with Ethernet circuitry) Internet connection hardware and software said Internet connection hardware and software presenting a valid Internet address for said printer device to the Internet (please note column 3 lines 21-45) However Venkatraman et al do not disclose: said printer software also reporting printer diagnostics over the Internet using said Internet address. On the other hand Skaanning discloses: printer software also reporting printer diagnostics over the Internet using said Internet address (please note page 5 paragraph 0058 where the printer 210 communicates over the internet 202 to the diagnostic system 201 of Fig.1). Therefore it would have been obvious to a person of ordinary skill in art at the time of the invention to modify Venkatraman et al's invention according to the teaching of Skaanning, where Skaanning in the same filed of endeavor teaches goes a step further by communicating with the internet for the purpose of reporting the diagnostic of the printer and getting back ways to correct them.

**Regarding claim 12** Venkatraman et al disclose: The printer device of Claim 10, wherein said microprocessor gathers statistics concerning said printer device (please note column 4 lines 22-32) Regarding claim 13 Skaanning discloses: The printer device

Art Unit: 2626

of Claim 12 further comprising said Internet connection hardware and software reporting said statistics over the Internet (please note page 5 paragraph 0058).

**Regarding claim 13** Skaanning discloses: the printer device of claim 12 further comprising said internet connection hardware and software reporting said statistics over the internet (note page 5 paragraph 0058).

**Regarding claim 14** Venkatraman et al disclose: The printer device of Claim 10, further comprising said printer device acting as an independent Internet server (please note column 4 lines 13-18).

**Regarding claim 15** Venkatraman et al disclose: The printer device of Claim 10, wherein said Internet connection hardware and software uses TCP/IP protocols (please note column 3 lines 9-20).

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Venkatraman et al (U.S. patent 6,170,007) in view of Desormeaux (Pub. No.: US 20020070988) and further in view of Skaanning (Pub. No.: US 20020044296)

**Regarding claim 3** Neither Venkatraman et al nor Desormeaux disclose: The ink jet print engine of claim 2, wherein the said diagnostic information is transmitted between at least one of said servers and said one of more component. On the other hand Skaanning discloses: The ink jet print engine of claim 2, wherein the said diagnostic information is transmitted between at least one of said servers and said one of more component (please note Skaanning, page 5 paragraph 0060 where the printer components through the print server 209 and web server 200 communicate).



Art Unit: 2626

Therefore it would have been obvious to a person of ordinary skill in art at the time of the invention to modify Venkatraman et al and Desormeaux's invention according to the teaching of Skaanning, where Skaanning in the same field of endeavor teaches the way the printer would transmit the self diagnosis to the service people through the internet for the purpose of repairing itself.

### **Contact Information**

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Saeid Ebrahimi-Dehkordy* whose telephone number is (571) 272-7462.

The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 5:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams, can be reached at (571) 272-7471.

#### **Any response to this action should be mailed to:**

Assistant Commissioner for Patents  
Washington, D.C. 20231

#### **Or faxed to:**

(703) 872-9306, or (703) 308-9052 (for **formal** communications; please mark  
"EXPEDITED PROCEDURE")

#### **Or:**

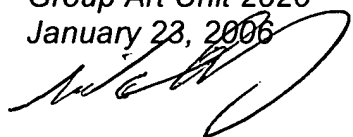
(703) 306-5406 (for **informal** or **draft** communications, please label  
"PROPOSED" or "DRAFT")

Art Unit: 2626

**Hand delivered responses** should be brought to Knox building on 501 Dulany Street, Alexandria, VA.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 305-4750.

Saeid Ebrahimi-Dehkordy  
Patent Examiner  
Group Art Unit 2626  
January 23, 2006



MARK WALLERSON  
PRIMARY EXAMINER

